and devoid of papillæ. After the fecundation they throw into the circulatory system the embryos already described. During the day the embryos are stored in the central organs of the body, and it is only during the hours of rest that they can be found in the peripheral circulation.

The filaria Bancrofti may produce not only chyluria, but a whole series of pathological conditions: elephantiasis, lymph scrotum, filarial orchitis, lymphangitis, varicose groin glands, and other affections of the lymphatic system. It must also be stated that not all cases of chyluria are due to this parasite; in some it has been impossible to demonstrate its presence either in the urine or in the blood.

The study of the filarial diseases is very interesting, as it was by it that Manson discovered the part played by mosquitoes in the transmission of certain diseases. Manson, in fact, noticed that the cycle of development of the filaria sanguinis hominis takes place in the stomach of the culex ciliaris or culex pipiens. Manson thought at first that the mosquitoes infected the water and the disease was transmitted by drinking it. It is now proved, however, that the water is not concerned in the transmission of the disease. In the case of filaria, as in malaria, the infected mosquito transmits directly the parasite by biting its victims. The sexual forms of the filaria, however, do not conjugate except in man, while the sexual forms of the malaria parasite fecundate only in the stomach of the mosquito. The filaria sanguinis hominis needs to develop in the mosquito during fifteen to twenty days before the insect becomes infectious.

The filaria sanguinis hominis was first discovered by Demarquay in 1863.

REPORT OF A CASE OF MOLLUSCUM CONTAGIOSUM.

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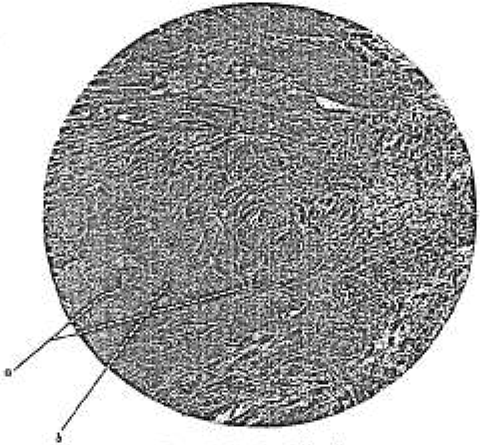
Molluscum contagiosum was first described by Bateman in 1817, and in 1841 Patterson called attention to the molluscum corpuscles found in the fluid that could be squeezed out of these tumors. Virchow, in 1865, described the growth as a lobulated glandular epithelioma, containing epithelial cells and bodies without nuclei. Since then a great number of investigators, including Virchow, Retzius, Kaposi, Neisser, Torök and Tommasoli, and MacCallum, have furnished articles on the subject.

In general, three different views have been advanced to explain the origin of the tumor: 1. The parasitic. 2. That the tumor has its origin in the cells of the sebaceous glands. 3. That it has its origin in the epithelium; however, believers in the last view differ as to whether it takes its origin from the epithelial cells of the hair follicles or of the rete Malpighi. Some of the believers in the parasitic theory, as Neisser and Retzius, still hold that the so-called molluscum bodies are the parasites. At present, however, the general belief is that these bodies are the result of a peculiar degenerative process effecting the epithelial cells. Stelwagon believes that there is a parasitic cause of the disease which as yet has not been discovered. A complete review of the literature on the subject up to 1902 is found in the article published by White and Robey (*Journal of Medical Research*, 1902, vol. vii.).

I am indebted to Dr. Kessler, Professor of Dermatology in the State University of Iowa, for the privilege of reporting this case. The patient was, by occupation, a farmer, white, aged fifty years. Family history gave indefinite history of carcinoma; past history, negative; no history of similar growths in the family or among associates could be obtained. The growth made its appearance just below the right lower eyelid, near the nose, one month previous to the time the patient was seen by Dr. Kessler. There was a steady increase in size, but no pain or discomfort. The patient was seen by Dr. Downing, of Wellman, Iowa, shortly after its appearance, who sent him to Dr. Kessler. At this time the tumor was a small grayish-white nodule, the size of a bean. It was well elevated above the surface and umbilicated. There was no pain and no sign of any other growths on other parts of the body. A diagnosis of molluscum contagiosum was made by Dr. Kessler, who removed the tumor and sent it to the Pathological Department of the State University of Iowa, where Prof. Albert confirmed the clinical diagnosis.

The tumor was fixed in formalin, embedded in celloidin, and sections stained with hæmatoxylin and eosin. It was composed of nine or ten downward growing processes. Each of these contained in the middle and extending almost to the base a degenerated hyaline mass, looking much like caseous material. In the upper layers of the corneum the cells in general were smaller than in the deeper layers; the nuclei stained heavily and varied much in size. It was impossible to make out definitely the cell outline in most of the preparations. The stratum lucidum was very thin or entirely absent in most of the slides. In the deeper layers of the rete Malpighi, the prickle cells were very prominent and well defined. The great majority showed a halo around the nucleus, but in a few the nuclei seemed to be absent. The papillæ were entirely obliterated, and the tumor seemed to have grown both upward and downward. In the downward-growing processes could be seen distinctly the typical cells of the rete Malpighi, and at the base of some of these processes could be seen the degenerated hyaline material previously referred to. All the cells of the rete in the immediate neighborhood of these areas showed signs of degeneration indicated by irregular staining, loss of nuclei, blurring of outline, and atypical nuclei (*b* in figure). In the neighborhood of these parts containing the degenerated material could be seen the so-called molluscum bodies (*a* in figure). The largest of these were about the size of the surrounding rete cells, and consisted of a hyaline spherical body contained within a cell membrane, but between it and the membrane there was apparently an empty space. Most of these cells, as has been stated, were found in the neighborhood of the degenerated hyaline areas. However, a number were found at a distance; some of these appeared to be smaller than the ones nearer the degenerated areas.



a, Molluscum bodies; *b*, prickle cells.

From what was seen it appeared that the so-called molluscum bodies were derived from the rete cells by a peculiar degeneration, transforming the cell contents into a hyaline-like material. Nothing was seen that would tend to show that they were parasities, and no inflammatory reaction was present.

The latest publications that have been read give the same view. White and Robey state that they believe that the molluscum bodies are simply keratin, identical with the horny layers, except in the shape of the individual cells. Apolant[1] says: "Die angeführten Tatsachen scheinen mir mit einer parasitären Deutung der Benda-scehn Körperchen unvereinbar zu sein. Ganz besonders kommt

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[1] Virchow's Archives, Band 174, 1903.

hierbei, abgesehen von allen anderen, oben erwähnten Momenten der Umstand in Betracht, das die Gröse der angeblichen Parasiten, namentlich bei Berücksichtigung der Marx-Stickerschen Befunde, innerhalb so enorm weiter Grenzen schwanken müste, wie wir es ohne Sporulation, von der nichts zu sehen ist, bei ähnlichen parasitären Gebilden bisher nicht kennen." However, he believes molluscum contagiosum in man and bird to be two different diseases. Herzog[1] says: "Gerade die hiermit erzielten auserordentlich scharfen farbigen Bilder haben nich jedoch zu der Auffassung geführt, das im ganzen Molluscum tumor, soweit sich aus Alkoholpräparaten überhaupt ein Schlus ziehen läst, nicht ein einziges Element vorhanded ist, das auch nur halbwegs mit Sicherheit als ein selkständiges, spezifisch organisiertes regelmäsig in bestimmten Entwicklungsstadien anzutreffendes und zur Klasse der Amöben oder der Cocciden oder der Sporozoen zu rechnendes Gebilde anzusehen ist. Es läst sich vielmehr kontinuierlich der Verlauf der Degeneration der intraacinären Epithelien von den normalen Basalzellen bis zum fertigen Molluscumkörperchen von Stufe zu Stufe verfolgen, ohne das auf einer derselben sich irgend ein Körper findet, der als Gebilde vorgenannter Art, sei es als Spore oder als im Jugendstadium befindliches oder als ausgewachsenes und encystiertes niederes Lebewesen zu deuten wäre." In conclusion, he makes the following statement: "Ebenso ist bei dem Molluscum contagiosum der Uebergang in Karzinom zu verfolgen gewesen, indem von Tommasoli Fälle beschrieben sind, in denen das gleichzeitige Nebeneinanderbestehen von Molluscum contagiosum und Hautkarzinomen bei Personen im mittleren Lebensalter einwandsfrei beobachtet werden konnte."

In the slides examined nothing that looked like carcinoma could be seen, and the patient six months after the operation has had no recurrence.

SURGICAL DIAGNOSIS IN GENERAL PRACTICE.[2]

By John B. Roberts, M.D.,
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Specialism has of late run to such extremes that there is possibility of patients being the worse for this exclusive cultivation of particular fields of medicine. A surgeon, unfamiliar with auscultation and percussion, makes a grave error when he attributes to sepsis a fever which is really a symptom of an intercurrent pneumonia. A physician is equally derelict when he overlooks a strangulated femoral hernia and doses the patient for intestinal colic.

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[1] Virchow's Archives, Band 176, 1904.

[2] The Address on Surgery for 1905 of the Ohio State Medical Association.